

Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) EP 1 123 666 A2

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication:
16.08.2001 Bulletin 2001/33

(51) Int Cl.7: A41C 3/00

(21) Application number: 01100207.8

(22) Date of filing: 02.01.2001

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE TR
Designated Extension States:
AL LT LV MK RO SI

(72) Inventor: Cervieri, Ferdinando
24100 Bergamo (IT)

(74) Representative: Vatti, Paolo, Dr. Ing. et al
Fumero Studio Consulenza Brevetti
Franz-Josef-Strasse 38
80801 München (DE)

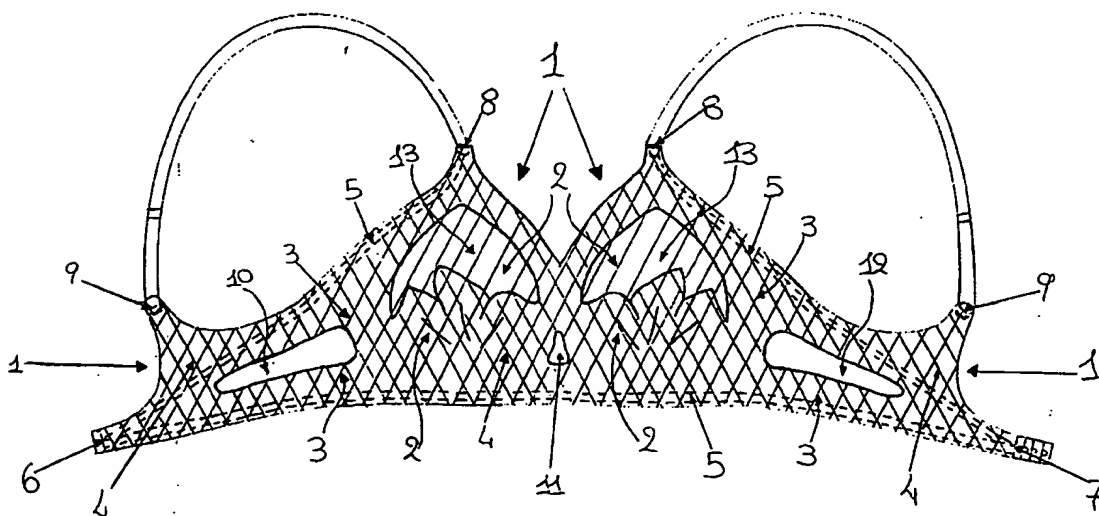
(30) Priority: 09.02.2000 IT MI200206

(71) Applicant: ERRECI S.P.A.
24066 Pedrengo (Bergamo) (IT)

(54) Improved brassiere

(57) In an improved brassière, with high capacities to keep an appropriate shape and involving a simple production process, the main body (1) is made of a single piece of outer basic fabric (3), at least partly of synthetic material, into which the cups (2) are formed by hot-pressing; to said basic fabric (3) of the main body

(1) of the brassière there is associated an inner stiffening fabric (4) applied by adhesion; and a stiffening band (5) is inserted between said fabrics (3 and 4), along the lower edge of the main body (1) of the brassière and between the connecting ends (6 and 7) to the rear fastening of the brassière and the front connections (8) to the shoulder straps.



EP 1 123 666 A2

Description

[0001] The present invention concerns an improved brassière which combines the characteristic of providing, and keeping in time, the most appropriate shape to give a perfect fit to the breast wearing the same, with the characteristic of a simple and economic production process.

[0002] The brassière according to the invention is substantially characterized in that: the main body is made of a single piece of outer basic fabric, at least partly of synthetic material, into which the cups are formed by hot-pressing; to said basic fabric of the main body there is associated an inner stiffening fabric applied by adhesion; and a stiffening band is inserted between said outer and inner fabrics, along the lower edge of the main body and between the connecting ends to the rear fastening and the front connections to the shoulder straps.

[0003] Preferably, the adhesion between the inner stiffening fabric and the outer basic fabric is obtained with the interposition of a thin sheet of thermo-adhesive material.

[0004] In producing the brassière according to the present invention one starts from a single piece of flat basic fabric, cut out in a manner suited to form said main body, and from a corresponding piece of stiffening fabric to which there has been associated, by hot-calendering, a thin sheet of thermoadhesive material. After having cut out a piece of stiffening fabric so as to adapt it, with a shape of its own, to the basic fabric, one inserts a stiffening band between said pieces of fabric, one introduces the previously formed ensemble into a hot-plate press so as to cause the single components to adhere, and one provides to form the cups by hot-pressing into a press-forging die.

[0005] Suitably, the stiffening band is partly inserted along the upper edge of the cups and is connected, practically at the top of the cups, to the front connecting ends of the fastenings for the shoulder straps. While the ensemble of the inner stiffening fabric with the thermoadhesive sheet associated thereto is cut out to form a piece fitting with the edges of the outer basic fabric, while leaving a substantial area of the cups surface without any stiffening.

[0006] One can advantageously make use of polyurethane to form said thin sheet of thermoadhesive material and said stiffening band.

[0007] The connecting ends to the rear fastening and to the shoulder straps are preferably formed by folding, and sewing together the ensemble formed by the outer basic fabric, the inner stiffening fabric and the stiffening band.

[0008] Between the two pieces of fabrics associated together to form the brassière, one can finally introduce a pair of metal strips along the lower periphery of the cups, to support and give shape to the breast.

[0009] The invention is now described in further detail, by mere way of example, with reference to a preferred

embodiment thereof illustrated on the accompanying drawing.

[0010] As can be seen from the single drawing, the brassière according to the invention consists of a main body 1, into which the cups 2 are formed by hot-pressing. The main body 1 of the brassière is formed of a single piece of outer basic fabric 3 (shown by lines inclined to the right), at least partly of synthetic material, to which there is associated a piece of inner stiffening fabric 4 (shown by lines inclined to the left) applied by adhesion. A stiffening band 5 is inserted between said fabrics 3 and 4, along the lower edge of the main body 1 of the brassière and between the connecting ends 6 and 7 to the rear fastening and the front connections 8 to the shoulder straps. Openings 10, 11 and 12 are provided, in known manner, into the main body 1 of the brassière.

[0011] Always according to the invention, the adhesion between the piece of stiffening fabric 4 and the piece of basic fabric 3 is obtained with the interposition of a thin sheet of thermo-adhesive material - for instance polyurethane, available on the market - being previously applied, by hot-calendering, to the stiffening fabric 4.

[0012] In producing the brassière according to the invention, one starts from a single piece of flat basic fabric 3, cut out in a manner suited to form said main body 1, and from a corresponding piece of stiffening fabric 4, in turn cut out so as to be adapted to the piece of basic fabric 3 with a shape of its own. A stiffening band 5 - preferably of polyurethane - is inserted between the pieces of fabrics 3 and 4 before associating together such pieces. The ensemble, thus formed, is then introduced into an appropriate hot-plate press so as to obtain, thanks to the thin polyurethane sheet associated to the piece of fabric 4, the adhesion between the single components of the ensemble and thereby form a monolithic ensemble of high strength and support. One subsequently forms the cups 2 by hot-pressing, introducing in a conventional manner said monolithic ensemble into a press-forging die.

[0013] The stiffening band 5 is inserted partly along the lower edge of the main body 1 of the brassière, between the connecting ends 6 and 7 to the rear fastening, and partly along the upper edge of the cups 2, between said ends 6 and 7 and the respective front connecting ends 8 of the fastenings for the shoulder straps, practically at the top of the cups 2: said band 5 is thus apt to stiffen the most urged areas of the brassière, thereby preventing any possible fraying thereof and keeping unaltered in time the functionality and pleasant aesthetic aspect of the article.

[0014] The ensemble of the inner stiffening fabric 4 with the thermoadhesive sheet is cut out so as to fit with the edges of the outer basic fabric 3, and leave without stiffening a substantial area 13 of the surface of the cups 2. This area may be defined with a pretty design, the ornamental features of which can be chosen independently from the general appearance of the article. In the case illustrated, the design consists of flower petals.

[0015] The connecting ends 6 and 7 to the rear fastening and the connecting ends 8 and 9 to the shoulder straps are formed by folding, and sewing together the ensemble formed by the piece of basic fabric 3, the piece of stiffening fabric 4 and the stiffening band 5.

[0016] If desired, a pair of metal strips (not shown) can be inserted - together with the stiffening band 5 or just after the same - between the piece of basic fabric 3 and the piece of stiffening fabric 4, along the lower periphery of the cups 2, in order to give more support and a close-fitting shape to the brest wearing the brassière. The metal strips can be inserted in bare form, or sheathed into a tubular protective element.

[0017] The production of the brassière according to the present invention is extremely simple and practical, and involves limited costs. In spite of this, the efficient structural combination of the invention allows to obtain a high-quality brassière, apt to take up and hold in time the most appropriate shape to give a perfect fit to the brest wearing the same.

Claims

1. Improved brassière with high capacities to keep an appropriate shape and involving a simple production process, characterized in that: the main body (1) is made of a single piece of outer basic fabric (3), at least partly of synthetic material, into which the cups (2) are formed by hot-pressing; to said basic fabric (3) of the main body (1) there is associated an inner stiffening fabric (4) applied by adhesion; and a stiffening band (5) is inserted between said fabrics (3 and 4), along the lower edge of the main body (1) and between the connecting ends (6 and 7) to the rear fastening of the brassière, and the front connections (8) to the shoulder straps.
2. Brassière as in claim 1), wherein the adhesion between the inner stiffening fabric (4) and the outer basic fabric (3) is obtained with the interposition of a thin sheet of thermo-adhesive material.
3. Brassière as in claim 1) or 2), wherein said sheet of thermo-adhesive material is previously associated to the stiffening fabric (4).
4. Brassière as in claims 1) to 3), characterized in that it is produced starting from a single piece of flat basic fabric (3), suitably cut out to form said main body (1), and from a corresponding piece of stiffening fabric (4) to which there has been associated, by hot-calendering, a thin sheet of thermo-adhesive material and which is cut out so as to be adapted to the piece of basic fabric (3) with a shape of its own; and in that a stiffening band (5) is inserted between said pieces of fabric (3 and 4), the ensemble thus formed is then introduced into an appropriate hot-plate press to obtain the adhesion between the single components of the ensemble, and the cups (2) are subsequently formed by hot-pressing into a press-forging die.
5. Brassière as in claims 1) to 4), wherein said stiffening band (5) is partly inserted along the upper edge of the cups (2) and is connected, practically at the top of the cups (2), to the front connecting ends (8) of the fastenings for the shoulder straps.
6. Brassière as in claims 1) to 5), wherein said thin sheet of thermo-adhesive material is of polyurethane.
7. Brassière as in claims 1) to 6), wherein said stiffening band (5) is of polyurethane.
8. Brassière as in claims 1) to 7), wherein the ensemble of the inner stiffening fabric (4) with the thermo-adhesive sheet associated thereto is cut out so as to form a piece fitting with the edges of the outer basic fabric (3), and leave without stiffening a substantial area (13) of the surface of the cups (2).
9. Brassière as in claims 1) to 8), wherein the connecting ends (6 and 7) to the rear fastening and the connecting ends (8 and 9) to the shoulder straps are formed by folding and sewing together the ensemble formed by the piece of basic fabric (3), the piece of stiffening fabric (4) and the stiffening band (5).
10. Brassière as in claim 4), wherein a pair of metal strips is inserted, together with the stiffening band (5), between said pieces of basic fabric (3) and stiffening fabric (4), along the lower periphery of the cups (2).

